



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,135	11/25/2003	Ryouichi Ochi	071671-0172	4421
22428	7590	06/13/2007	EXAMINER	
FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			KOLETOWO, RASHEEDAT	
		ART UNIT	PAPER NUMBER	
		2609		
		MAIL DATE	DELIVERY MODE	
		06/13/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/720,135	OCHI ET AL.
	Examiner	Art Unit
	Rasheedat O. Koletowo	2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on November 25, 2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-39 is/are rejected.
- 7) Claim(s) 2,3,16,17 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>November 25, 2003</u> | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

This is in response to the application filed on November 25<sup>th</sup>, 2003, where applicant has filed application No. 10/720,135 claiming foreign priority from a foreign application filed on December 2<sup>nd</sup>, 2002. The following Office Action is based on the application filed on November 25<sup>th</sup>, 2002 in which claims 1-39 and figures 1-5 are presented for examination.

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

2. The information disclosure statement filed November 25th, 2003 complies with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. It has been placed in the application file, and the information referred to therein has been considered as to the merits.

***Status of Claims***

Claims 1 to 39 are pending, of which claims 1-3 and 15-17 are in independent form.

***Specification***

3. The Background, Summary and Detailed description of the invention in the disclosure is objected to because of the following informalities: The acronyms IP, RTP, QoS and UDP should be changed to Internet Protocol (IP), Real Time Packets, Quality of Service and User Data Packets respectively. More so, every instance of the aforementioned acronyms should be changed in the specification.

Appropriate correction is required. See MPEP § 608.01(b) or CFR 1.71.

***Claim Objections***

4. Claims 2,3,16 and 17 are objected to because of the following informalities: The acronym: RTP should be changed to Real Time Packets.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Regarding claims 4 and 5, the phrase "data," recited in lines 2 and 3 respectively, renders the claim indefinite because there is insufficient antecedent basis for this limitation. It is unclear whether the applicant is referring to a previously mentioned "voice data" or "packet data".

Regarding claim 7, the phrase "transmission side data," recited in line 2 renders the claim indefinite because there is insufficient antecedent basis for this limitation. It is unclear whether the applicant is referring to a previously mentioned "voice data", "voice clauses" or "voice based".

Claims 8, 9 and 10, recite the limitation "the voice" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 14, 38 and 39 recite the limitation "A voice data transmitting and receiving system" in line 1. It is unclear as to whether there is a new system additional to the system in claim 1 or if this is in fact the same system. The phrase "the system" recited in line 2 further creates ambiguity because it is unclear if applicant is referring to a "system" in line 1 or if applicant is referring to a previously mentioned "system" in claims 1, 2 or 3. Therefore both phrases render the claims vague and indefinite.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1,3,4,8,10-12,14-15,17-19,26-27,30-35,38-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Koyama et al. (US 6,226,361 B1), hereinafter Koyama.**

Re claim 1, Koyama discloses in Fig. 1(a) a transmitting and receiving system wherein:

on the transmission side voice clauses [**voice inputting element (1A)**] are divided and transmitted as packet data [**packet transmission and communication control section (5A)**] in the divided clause units, and on the reception side the voice data is outputted as voice [**voice outputting element (1B)**] based on the received packet data in the clause units [**packet reception and communication control section (5B)**].

Re claim 3, Koyama discloses a system wherein:

On the transmission side: real-time communication packets [**using real time protocol see col. 1, line 30**] are generated based on input voice data [**see Fig. 5a**]; the input voice data is divided off into clause units [**input voice is recognized first and then converted into data in form of a packet, see col. 1, lines 57-59**]; and a plurality of voice data RTPs in the clause units are combined into a single packet data [**system involves a communication in the single packet exchange network, see col. 1, lines 62-63**] and transferred to a communication path [**resulting packets are transferred to the other party terminal through the modem 5 and**

**network control-accessing section 4 of the transmission side and the communication line, see col. 7, lines 30-31]; and**

on the reception side: packet data in clause units are obtained from packeted received data received [**character code data are sent as packet data to the call terminating side, see col. 9, lines 1-3 and Fig. 4; S110 to S210**] via the communication path [**see Fig. 4; S101 to S201**], thereby producing a replica of the RTPs in clause units [**time charts illustrating the relationship in time of data processing, see Fig 5a**]; and

**the voice data is outputted as voice based on the plurality of RTPs [see Fig 4; where received packet data S210 is transmitted for decompression then reproduced as voice through S213].**

Re claims 4,18 and 19, Koyama discloses in Fig 2 of a system wherein

**data sent out from the transmission side is in the form of a file [language can be stored and transmitted as characters, see col. 10, lines 25-26. The method can be applied to storage of calls via] [a voice or data storage unit (7), see col. 6, line42].**

Re claims 8, 26 and 27, Koyama discloses a system wherein

**the voice is divided into clauses based on Voice recognition [The voice data is inputted to a speech recognition conversion section 2A, by which it is converted into a character code data signal using speech recognition, see col. 5, lines 24-26].**

Re claims 10, 30 and 31, Koyama discloses a system wherein  
the voice is divided into clauses based on the sound level of the input voice  
**[background sound such as sound in the external world which enters the phone  
and voice of the talking person are reproduced in a superposed relationship on  
each other, see col. 11, lines 20-23]**

Re claims 11, 32 and 33, Koyama discloses a system wherein  
the voice is divided off into clauses based on changes in the input voice pitch  
level **[the call originating side terminal sends out background sound source data  
corresponding to background sound together with the packet character data.  
The call terminating side outputs the voice data and background sound in a  
superposed relationship with each other; see col. 3, lines 55-60]**

Re claims 12, 34 and 35, Koyama discloses a system wherein  
the voice is divided off into clauses based on measured movement of the user's  
lips **[the call originating side produces image data obtained by imaging the talking  
person and sends out the image data to the call terminating side; the call  
terminating side displays an image based on the received image data, see col. 4,  
lines 3-7].**

Re claims 14, 38 and 39, Koyama teaches in wherein

the system is selected based on the extent of communication per unit time between the transmission and reception sides [a communication control section – transmission means and reception means 3 – for controlling an entire communication control procedure, see col. 6, lines 37-39].

Re claim 15 is a method that utilizes the corresponding system disclosed in claim 1. Therefore the rejection for claim 1 also applies to claim 15.

Re claim 17 is a method corresponding to the system disclosed in claim 3. Therefore the rejection for claim 3 also applies to claim 17.

**Claims 2,5-7,9,16,20-25,28-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsutsumi et al. (US 2003/0179745 A1), hereinafter Tsutsumi.**

Re claim 2, Tsutsumi teaches of a system wherein:

On the transmission side: real-time communication packets are generated based on input voice data [voice data using RTP are usually transmitted and received, see paragraph 6, lines 4-5];

the input voice data is divided into clause units [a packet switching circuit 142 for generating a voice packet, see paragraph 24, lines 6-7];

a plurality of RTP voice data in the clause units are transferred as packet data

[voice data accumulated is transmitted from start till end to the packet switching circuit 142 and converted to IP packet, see paragraph 32, lines 3-6] to a communication path [data received from the IP network 2 via the LAN interface 13, see paragraph 26, lines 1-2 and Fig. 1];

on the reception side: packet data in clause units are obtained from packeted received data received [reliable data coupling is ensured on the receiving side via the voice dividing/combining circuit 147, see paragraph 29, lines 1-2; and the interface circuit 13 makes data transmission to the opposite side] via the communication path [2 via 13 see Fig. 1], thereby producing a replica of the RTPs in clause units [the received stored voice data are reproduced, see paragraph 36, lines 7-8] and

outputting the voice data as voice based on the replica of the RTPs [when one file data has been accumulated, it is coupled to the voice output unit for voice output, see paragraph 26, lines 8-10]

Re claims 5, 20 and 21, Tsutsumi teaches of a system wherein

on the transmission side either a re-transfer request is provided by recognizing missing of received data or an interpolation process on the received data is executed based on the received file data [due to packet delay and packet losses of voice data, the re-transmission processing circuit generates packets including previous packets from time stamp and unit time for re-transmission, see paragraph 35, lines 3-8].

Re claims 6, 22 and 23, Tsutsumi discloses a system wherein  
the file data sent out from the transmission side is provided with discrimination  
data [a division file header is added to the voice data division to indicate division,  
**paragraph 33, lines 11-12. The HTTP control circuit 146 for controlling data**  
**communication with an HTTP protocol generates an HTTP file from the voice file**  
**accumulated on the bases of HTTP, see paragraph 34, lines 8-11].**

Re claims 7, 24 and 25, Tsutsumi discloses a system wherein  
in the reception, transmission side data is taken out from the received file data  
based on the discrimination data [**In the receiving side, the header analyzing circuit**  
**143 analyzes the header of the data received and for separating HTTP file**  
**containing voice data and other data, it decides with reference to the obtained**  
**header, the data to be HTTP file or voice data file, see paragraph 40, lines 1-6].**

Re claims 9, 28 and 29, Tsutsumi discloses a system wherein  
the voice is divided into clauses based on an externally provided instruction [**the**  
**detection of the speech start and mute is performed by the level detecting circuit**  
**12, where a switch circuit is provided , which is manually operated by the**  
**operator from the start and end of transmission, see paragraph 43, lines 5-7].**

Re claim 16 is a method corresponding to the system disclosed in claim 2. Therefore the rejection for claim 2 also applies to claim 16.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 10,11,13,30-33,36,37 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Williamson et al (US 4,093,821), herein Williamson.**

Re claims 10, 30 and 31, Koyama discloses a system wherein the voice is divided into clauses based on the sound level of the input voice Kayama teaches of a speech recognition and synthesis conversion section that's converts data using speech recognition. However, Williamson (US 4,093,821) discloses of a [particular speech analyzer that analyzes pitch and frequency perturbations in the speech pattern via vocal cords and vocal tract; which consists of the throat, nose, mouth tongue lips and pharynx, see col. 2, lines 2-16]. Based the teachings of Williamson (US 4,093,821), at the time of the invention, it would have been <inherent>/obvious to a person in ordinary skill in the art to augment

the speech recognition conversion section 2A of Koyama to analyze voice data by adding additional feature selections to the predetermined source code that compares registered waveforms with an inputted voice [col. 10, lines 40-45] or to incorporate an additional device [col. 7, lines 40-43] for modulation analyses based on the vocal cords and vocal tracts.

Re claims 11, 32 and 33, wherein

"the voice is divided off into clauses based on changes in the input voice pitch level" is substantially similar to an element in claim 10 is therefore rejected using the same rational given in claim 10.

Re claims 13, 36 and 37, wherein

"the voice is divided off into clauses based on measured vibrations of the user's throat" is substantially similar to an element in claim 10 is therefore rejected using the same rational given in claim 10.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fuller (US 3,855,416 A) discloses a method in detecting the vibration within a voice pattern. The information regarding the voice signal analysis in the vocal chords is relevant material

Horndl et al. (US 6,711,545 B1) discloses a device for processing speech signal. The information regarding digitizing means, insertion slot, storage means and control terminal are relevant materials.

Raghunandan (US 6,944,591 B1) discloses an apparatus for controlling email using audio support. The information regarding speech-to-text converter is of relevance.

Murkherji et al. (US 7,117,152 B1) discloses a system with a voice input and acoustic output device. The information regarding voice/text module and CODEC are of relevance.

Tirpak et al. (US 7,136,811 B2) discloses a voice coding and decoding system and method of using a personal phoneme table as a voice signature identifier. The information regarding voice recognition based on the table and its storage is relevant material.

Ostermann et al. (US 7,177,811 B1) discloses a method where message includes animated entity (image) audibly presenting speech converted from text by the sender. The information presented is of relevance.

Begeja et al. (US, 6,546,009 B1) discloses a method of reducing delays in transmitting packet. The information pertaining to the voice encoder and audio buffers are relevant materials

Sato (US 2004/0220801 A1) discloses a filtering system for voice data. The information regarding measurement of pitch and amplitude of input voice are of relevance.

Kudo et al. (US 5,148,429 A) discloses a system and method for reducing transmission delay time and removing unnatural conversation. The information regarding the encoder, voice/silence detector and white noise generator are relevant materials.

### ***Contacts***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rasheedat O. Koletowo whose telephone number is 571-272-9824. The examiner can normally be reached on Monday-Thursday, 7:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Coby can be reached on 571-272-4017. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rasheedat Koletowo  
R.K./r.k.



June 4, 2007

  
FRANTZ COBY  
PRIMARY EXAMINER